IN THE CLAIMS:

Please amend claim 5 as indicated in the following listing of claims. This listing of claims replaces all prior versions and listings of claims in the application.

1. (Original) A method for estimating a location of an injection point of foreign signals in a network, said method comprising the steps of:

obtaining a first signal sample at a first location in the network;

obtaining a second signal sample at a second location in the network;

correlating the two signal samples; and

establishing the location of the injection point from the correlation result.

2. (Original) The method of claim 1, wherein the step of establishing the location of the injection point includes the steps of:

calculating a propagation delay from the correlation result;

calculating an offset as being a function of the propagation delay;

finding a midpoint between the first location in the network and the second location in the network;

estimating the location of the injection point by locating a point that is a distance equal to the offset from the midpoint.

3. (Original) The method of claim 2, wherein the offset and the propagation delay are related by the velocity of propagation.

PAGE 4/14 * RCVD AT 10/18/2004 12:43:48 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID:9727183946 * DURATION (mm-ss):04-50

4. (Original) The method of claim 1, wherein the two signal samples are bandwidth limited.

5. (Currently Amended) The method of claim 1, further including the step of determining the magnitude of ~~the~~ an ingress associated with the injection point.

6. (Original) The method of claim 5, wherein determining the magnitude of the ingress includes measuring the amplitude of the correlation result.

7. (Original) The method of claim 1, wherein the step of correlating the two samples further includes integrating the samples over time.

8. (Original) The method of claim 1, wherein the first location in a network is a node.

9. (Original) The method of claim 8, wherein the step of obtaining a second signal sample at a second location in the network further includes sending the second signal sample to the node at the first location in a network.

10. (Original) The method of claim 9, wherein correlating the two signal samples occurs at the node at the first location in a network.

PAGE 5/14 * RCVD AT 10/18/2004 12:43:48 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID:9727183946 * DURATION (mm-ss):04-50

11. (Original) The method of claim 10, further comprising the step of displaying the correlation result.

12. (Original) The method of claim 11, wherein the correlation result is sent from the node at the first location in a network to the second location in the network for display.

13. (Original) The method of claim 1, further comprising the step of displaying the result of correlation.

14. (Original) A system for estimating a location of an injection point of foreign signals in a network, said system comprising:

means for obtaining a first signal sample at a first location in the network;

means for obtaining a second signal sample at a second location in the network;

means for correlating the two signal samples; and

means for establishing the location of the injection point from the correlation result.

15. (Original) The system of claim 14, wherein the means for obtaining the first signal sample includes a probe, a link, and a means for sending and receiving data.

16. (Original) The system of claim 15, wherein the link is a fiber-optic link.

PAGE 6/14 * RCVD AT 10/18/2004 12:43:48 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID:9727183946 * DURATION (mm-ss):04-50

17. (Original) The system of claim 15, wherein the means for sending and receiving data is a modem.

18. (Original) The system of claim 14, wherein the means for correlating signal samples includes a means for sending and receiving data and a signal processor.

19. (Original) The system of claim 18, wherein the means for sending and receiving data is a modem.

20. (Original) The system of claim 14, further including a means for displaying the correlation result.

21. (Original) The method of claim 8, wherein the step of obtaining a first signal sample at the first location in the network includes obtaining a reference sample signal.

22. (Original) The system of claim 14, wherein the means for obtaining the second signal sample at a second location in the network includes a means for obtaining a reference signal sample.

23. (Original) The method of claim 1, further comprising the step of establishing a location of a potential egress point at the location of the injection point.

PAGE 7/14 * RCVD AT 10/18/2004 12:43:48 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID:9727183946 * DURATION (mm-ss):04-50

24. (Original) The system of claim 14, further comprising means for establishing a location of a potential egress point at the location of the injection point.

PAGE 8/14 * RCVD AT 10/18/2004 12:43:48 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/2 * DNIS:8729306 * CSID:9727183946 * DURATION (mm-ss):04-50